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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/623,409	07/18/2003	Chuong Diep	EC-6458	5003

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EXAMINER

FISHMAN, MARINA

ART UNIT PAPER NUMBER

2832

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/623,409

Applicant(s)

DIEP, CHUONG

Examiner

Marina Fishman

Art Unit

2832

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 23 and 24 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1 - 22, 25 and 26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 7/18/2003.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

General Status

1. Applicant's election without traverse of Group I, readable on claims 1 – 22, 25 and 26 in Paper received on the 26 of April 2004 is acknowledged.

Claims 23 and 24 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Group, there being no allowable generic or linking claim.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Stevens [US 3,315,535].

Stevens discloses an assembly [Figures 1 – 8] comprising:

- a housing [36], switch contacts [Column 1, lines 67 –73] operable between actuated and non-actuated conditions;
- a switch actuation mechanism [20], a push button [58];
- a force transmitting apparatus [54, 86, 96] extending between the push button and the switch actuation mechanism to transmit the force from the push button to the switch actuation mechanism;

- a first end portion [top of the of pin 54] snaps into an opening connected with the push button [Figure 2];
- a second end portion [bottom of pin 96] through which the force is transmitted to the switch actuation mechanism.

Regarding Claim 18, the actuation mechanism disclosed by Stevens is a snap-action type.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6, 13, 14, 19-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens [US 3,315,535] in view of Olson [US 4,001,526].

Stevens discloses an assembly [Figures 1 – 8] comprising:

- a housing [36], switch contacts [Column 1, lines 67 –73]
- operable between actuated and non-actuated conditions;
- a switch actuation mechanism [20], a push button [58];
- a force transmitting apparatus [54, 86, 96] extending between the push button and the switch actuation mechanism to transmit the force from the push button to the switch actuation mechanism;

- a cam follower [102], a cam block [86];
- a first actuator member [26], a second actuator member [24],
a spring [28] connected between the first actuator member
and the second actuator member.

Regarding Claims 2, 3, 15, 19 and 21, Stevens discloses first and second actuator members [26, 24], are pivoted, [Figures 2 and 3; Column 2, line 15]. The second actuating member [24] is disclosed with a pin (not numbered), which is connected to the housing [Figure 1] and hence the second actuating member is provided with third and fourth bearing surfaces about a second axis (of the supporting pin, not numbered, Figure 3), similarly, since the pivoting action for the first actuating member, it would have been obvious to provide first and second bearing surfaces for the first actuating member and also provide a pin with first axis onto which the first and second bearing surfaces of the first actuating member can be supported so as to obtain the pivoting of the first actuating member.

Regarding Claims 5 and 6, Stevens [Figure 8] discloses a support pin [132] extending from a bottom wall of the casing. The cam follower has a base arm [80, 72'], a helical coil [130] and a follower arm [102'], which engages the cam surface [110, 114]. Also, the main section [74'] and follower section [102'] are perpendicular to each other. However, the end of the base section is not parallel to the end of the follower arm. Embodiment of Figure 7 discloses a portion of base section parallel to the end of follower section. Therefore, it would have been obvious matter of design choice to provide the end section of the base section parallel to end section of the follower arm.

Regarding Claims 13 and 22, Stevens [Figures 6 and 7] discloses a cam block [86], cam follower [102], first and second portions [110, 114, 122] of cam surfaces, and force transmitting pin [54].

Regarding Claims 1, 13, 21, 22 and 25, Stevens discloses the instant claimed invention except for the cam block and the first and second force transmitting pins being formed as one piece. It would have been obvious to one having ordinary skill in the art at the time the invention was made to make two parts into integral unit, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. [Howard v. Detroit Stove Works, 150 U.S. 164 (1893).]

Regarding Claim 3, Stevens discloses the instant claimed invention except for the first and second actuator members [26, 24] being formed of first and second pieces of polymeric material. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use polymeric material for the first and second actuator members in order to make them corrosion resistant, since it has been held within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use [In re Leshin, 125 USPQ 416].

Regarding Claims 4 and 14, Stevens discloses the instant claimed invention except for a groove on force transmitting pin and flange on the push button. Olson [Figures 1 and 2] discloses a force-transmitting pin [36] with groove (not numbered) and body of the push button [38] with resilient projecting flanges (not numbered). It would have been obvious to one of ordinary skill in the art, at the time the

invention was made to provide groove for pin [54] of Stevens and also provide resilient projecting flanges in the body of the push button as taught by Olson, so that the push button and the first pin can be removably connected.

6. Claims 7 – 11, 16, 17 and 26 rejected under 35 U.S.C. 103(a) as being unpatentable over Stevens [US 3,315,535] in view of Olson [US 4,001,526] as applied to claims 1, 12 and 25 above, and further in view of Hart [US 5,659,162].

Regarding Claims 7-11, 16, 17 and 26, Stevens and Olson disclose the instant claimed invention, however, both do not disclose a printed circuit connecting to a plurality of light sources. Hart discloses a plurality of light sources and a printed circuit connecting the light source to a plurality of switch terminals. It would have been obvious to one of ordinary skill in the art to provide a printed circuit to connect terminals of the switch to the plurality of light sources, as taught by Hart, so that the switch button is illuminated and signal is provided from the terminals to the light sources.

Regarding claims 8, 17 and 26, though Hart does not disclose the circuit board having an opening, providing opening for passing the pin, would be a an obvious matter of design choice. For Claim 9, the traces on the printed circuit are taken as components, alternatively the LED of Hart reference can be taken as circuit components. For claims 10 and 11, Hart discloses end portions of the circuit board connected to the switch contacts and the push buttons. Though the Hart reference does not disclose arm sections of the circuit board, it would have been a matter of design choice to provide arm sections running along sidewalls of the housing, so that the circuit board can be properly supported in the housing.

Conclusion

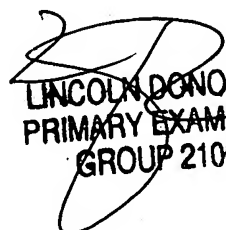
7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hart [US 6,667,451] and Bailey [US 3,651,700] both disclose push button switches. Applicant also should consider these references in response to this office action. Should issue arise concerning the rejection presented above, these references may be relied upon in a subsequent action to support the lack of novelty or obviousness of claimed subject matter to one of ordinary skill in the art.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marina Fishman whose telephone number is 571-272-1991. The examiner can normally be reached on 7-5 M-T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Elvin Enad can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marina Fishman
May 10, 2004


LINCOLN DONOVAN
PRIMARY EXAMINER
GROUP 2100